

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A tool comprising:
a base portion including a pattern to impress the pattern on a substrate, wherein the base portion comprises a nickel alloy chosen from the group consisting of a nickel-cobalt alloy, a nickel-manganese alloy, and a nickel-iron alloy; and
a nickel layer deposited over the base portion, wherein the nickel layer has a hardness greater than the hardness of the base portion.
2. (Original) The tool of claim 1, wherein the base portion comprises nickel.
3. (Previously Presented) The tool of claim 1, wherein the nickel layer comprises a composite layer.
4. (Currently Amended) The tool of claim 3, wherein the composite layer includes nickel and a reinforcement constituent chosen from the group consisting of silicon carbide, aluminum oxide, diamond particles, and polytetrafluoroethylene (~~PTFE~~).
5. (Previously Presented) The tool of claim 1, wherein the nickel layer has been annealed.
6. (Original) The tool of claim 1, wherein the substrate is a package substrate.
7. Cancel
8. Cancel
9. (Previously Presented) The tool of claim 1, wherein the nickel layer comprises a nickel-phosphorous layer.

10. (Original) The tool of claim 1, wherein the pattern is to pattern an interconnect structure.

11-24 (Canceled)

25-27 Cancel

28. (Currently Amended) A microtool comprising:

a base portion including a pattern to pattern interconnects in a dielectric layer on a package substrate, wherein the base comprises a nickel alloy chosen from the group consisting of a nickel-cobalt, a nickel-manganese alloy, and a nickel-iron alloy; and

a nickel layer deposited over the base portion, wherein the nickel layer is to increase an overall hardness of the microtool, and wherein the nickel layer comprises a composite including a reinforcement constituent chosen from the group consisting of silicon carbide, diamond particles, aluminum oxide, and ~~PTFE~~ polytetrafluoroethylene.

29. (Currently Amended) A tool comprising:

a base portion including a pattern to impress the pattern on a substrate, wherein the base comprises a nickel alloy chosen from the group consisting of a nickel-cobalt alloy, a nickel-manganese alloy, and a nickel-iron alloy; and

a composite layer deposited over the base portion, wherein the composite layer includes nickel and a reinforcement constituent chosen from the group consisting of silicon carbide, aluminum oxide, diamond particles, and polytetrafluorethylene (~~PTFE~~).

30. (Currently Amended) A tool comprising:

a base portion including a pattern to impress the pattern on a substrate; and
~~an~~ a nickel layer deposited over the base portion, wherein the base comprises a nickel alloy chosen from the group consisting of a nickel-cobalt (~~Ni-Co~~) alloy, a nickel-manganese (~~Ni-Mn~~) alloy, and a nickel-iron (~~Ni-Fe~~) alloy.

31. (Currently Amended) The microtool of claim 28, wherein the nickel layer ~~deposited over the base portion~~ comprises a nickel alloy chosen from the group consisting of a nickel-phosphorous alloy and a nickel-boron alloy.
32. Cancel
33. Cancel
34. Cancel
35. (Currently Amended) The tool of claim 30 further comprises, ~~wherein the nickel layer comprises~~ a composite including a reinforcement constituent chosen from the group consisting of silicon carbide, diamond particles, aluminum oxide, and polytetrafluorethylene PTFE.
36. (Currently Amended) The tool of claim 30, ~~wherein the nickel~~ wherein the nickel layer ~~deposited over the base portion~~ comprises a nickel alloy chosen from the group consisting of a nickel-phosphorous alloy and a nickel-boron alloy.
37. (New) The microtool of claim 28, wherein the nickel layer is less than 10 microns thick.
38. (New) The tool of claim 29, wherein the composite layer has a hardness value greater than 1100.
39. (New) The tool of claim 29, wherein the substrate is a package substrate.